UNITED STATES DISTRICT COURT DISTRICT OF SOUTH DAKOTA CENTRAL DIVISION

Tim Lors, acting in his own capacity)	CIVIL CASE NO: CIV 07-3017
Plaintiff)	
v.)	EXPERT WRITTEN REPORT
Jim Dean, acting in his official and)	
individual capacities)	
Deb Dufour, acting in her official and)	
individual capacities)	
Otto Doll, acting in his official and)	
individual capacities)	
Kim Stahl, acting in her official and)	
individual capacities)	
The State of South Dakota,)	
Larry Long - Attorney General)	
)	
Defendants)	

This written report is submitted pursuant to Rule 26(a)(2)(B), Federal Rules of Civil Procedure.

My name is Dr. Brandon Allard, and I am an Endocrinologist with Sanford Diabetes & Thyroid, located in Sioux Falls, SD. I have been asked to evaluate documentation and evidentiary material in connection with the above civil action. This report accurately reflects my opinions, the basis and reasons for those opinions, the data and information that I have considered in forming these opinions, and also correctly sets forth my qualifications and other required information set forth under Rule 26(a)(2)(B).

1. Complete statement of all opinions expressed and the basis and reasons for those opinions:

I have reviewed documentation and evidentiary material furnished to me in the referenced civil action, including all of the data and information described in the following paragraph no. 2. Based upon my review of this information, and also based on my training, experience and knowledge as an Endocrinologist with Sanford Diabetes & Thyroid, I can and do hereby express the following opinions concerning the plaintiff's diabetes management regiment.

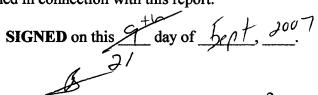
- a. Mr. Lors is a type 1 diabetic and requires continuous insulin injections to survive. Proper insulin dosing depends on his food intake, physical activity, and insulin efficiency. Precise dosing is critical under dosing results in accrued physical harm (diabetic complications), and over dosing results in insulin reactions (loss of motor control, and potential immediate death).
- b. I am familiar with Tim Lors' diabetes management regiment. Tim uses an insulin pump, which is one of the most up-to-date insulin delivery technologies. Multiple basal

insulin delivery programs are a feature of this unit. This is to accommodate multiple activity patterns. However, since Tim's physical activity continuously fluctuates, no preset program can be an ideal match nor can any program pattern be fined tuned to accurately match his changing target. Furthermore, not only is one's insulin requirement dependant on one's current level of physical activity, but it also varies depending on the accumulated level of physical activity during the previous days. The resulting mismatch in insulin dosing causes frequent insulin reactions which present an immediate threat to his physical safety, and A1C blood levels about 1% higher than they otherwise would be. Elevated A1C blood levels result in lifelong physical ailments (diabetic complications) and premature death.

- Mr. Lors injects rapid acting insulin which begins to take affect in about 10 minutes, nears its peak in about an hour, and tapers off completely in about 5 hours. By using fast responding insulin, Mr. Lors can alter the amount of active insulin in his system in the timeliest manner. However, ideal insulin dosing is not possible in the presence of unanticipated physical activity. Insulin requirements drop when one's level of physical activity increases. Even if one terminates insulin delivery immediately upon embarking on unplanned physical activity, one's blood sugar level will still fall due to the amount of insulin already delivered.
- Mr. Lors would benefit from the use of a continuously reading blood sugar monitor. This device has been just recently approved by the FDA. This device provides real time indications of blood sugar fluctuations, allowing its user to make more timely corrections for abnormal blood sugar values.
- Mr. Lors was diagnosed with type 1 diabetes in late 1977. His actions and his conduct regarding diabetes management have always been in accord with the training that he had received and the then current standards of medical care. Limited technologies and information were available during the early years of his chronic medical condition. It is now known that diabetic complications occur as result of accumulated elevated A1C levels.
 - The data or information considered by the undersigned in forming these opinions: 2.
 - Plaintiff's medical file a.
 - Plaintiff's comprehensive blood sugar log b.
 - My medical examine of the plaintiff c.
 - My discussions with plaintiff d.
 - The landmark DCCT and EDIC study findings

3.	Quali	ualifications of the witness:			
	a.	See CV	(education)		
	b.		(professional training)		
	c.		(experience)		
4.	List o	f all publications authored by wit	ness within preceding ten years:		
	a.				
	b.	Nort applicable			
	c.	, , , , , , , , , , , , , , , , , , ,	<u> </u>		

Compensation: The undersigned is being compensated for services in preparing and submitting this written report at the rate of \$_O per hour. A total of approximately hours has been expended in reviewing and evaluating all of the data and information furnished in connection with this report.



Dr. Brandon Allard

STATE OF SOUTH DAKOTA COUNTY OF Minchala

SWORN TO and subscribed before me, the undersigned notary public in and for the above state and county, on this 21^{sf} day of 500^{-4} , 2007.

Notary Public

My Commission Expires: